| AMENDMENT OF SOLICITATION  | /MODIFICATION OF C   | CONTRACT   | 1. CONTRACT ID CODE  | PAGE OF PAGES   2   |
|--|--|--|--|---|
| 2. AMENDMENT/MODIFICATION NO. AM-0004  | 3. EFFECTIVE DATE 01/25/02   | 4. REQUISITION/PUI   | RCHASE REQ. NO. 5. PROJEC  | T NO. (If applicable)   |
| ODE US ARMY ENGINEER DISTRICT, HONOL CORPS OF ENGINEERS, BUILDING S-200 FORT SHAFTER, HAWAII 96858-5440 CONTRACT SPECIALIST: RENEE M. HIC  | .ULU<br>KS   | 7. ADMINISTERED E  | Y (If other than Item 6)CODE   |   |
| The above numbered solicitation is amended as set  Offer must acknowledge receipt of this amendment prior t  (a) By completing Items 8 and 15, and returning submitted; or (c) By separate letter or telegram which inclu AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFE amendment you desire to change an offer already submitte this amendment, and is received prior to the opening hour a  12. Accounting and Appropriation Data (If requirements)  13. THIS ITEM A | FACILITY CODE  M ONLY APPLIES TO forth in Item 14. The hour and to the hour and date specified in  ——————————————————————————————————— | AMENDMENTS C date specified for receipt the solicitation or as ame nendment; (b) By acknow on and amendment numb DATE SPECIFIED MAY RE by telegram or letter, prov  DIFICATIONS OF DER NO. AS DESC GES SET FORTH IN ITEM MINISTRATIVE CHANGE: TY OF FAR 43.103(b).  ITY OF:  ment and return  section headings, inc DT&E REPAIR WA  renced in Item 9A or | of Offers is extended, nded, by one of the following method ledging receipt of this amendment on ers. FAILURE OF YOUR ACKNOWLEI SULT IN REJECTION OF YOUR OFFE ded each telegram or letter makes refered each telegram or lett | is not extended.  13)  is not extended.  s: each copy of the offer DGEMENT TO BE RECEIVED R. If by virtue of this ference to the solicitation and  DRDER NO. IN ITEM 10A.  Dice. Dject matter where  KWAJALEIN ATOLL  remains unchanged and |
| 15B. CONTRACTOR/OFFEROR  | 15C. DATE SIGNED   |  | TES OF AMERICA   | 16C. DATE SIGNED  |
| (Signature of person authorized to sign)   | _  |  | ature of Contracting Officer)  |   |
| NSN 7540-01-152-9070   | Created using Perf   | form Pro software.   | STANDARD FO  | ORM 30 (REV. 10-83)   |

AM-0004
RFP No. DACA83-02-R-0003
Item 14 (Continued)

Standard Form 30 Page 2 of 2 Pages

- 1. CHANGES TO SPECIFICATIONS. Attached hereto are new and revised pages and sections to the specifications. The revision mark "(AM-0004)" is shown on each page.
  - A. <u>REVISED PARAGRAPHS</u>. The following are revised paragraphs to the specifications. Changes are indicated in bold. The following are new, revised, and deleted paragraphs to the specification.
  - B.  $\underline{\text{NEW PAGES}}\,.$  The following paragraphs are added to the specification:

DIVISION 01 Section 01451 Section 01900 Submittal Register Water Tank

WATER TANKS Section 03314

COLD STORAGE FACILITY
Section 13280 Hazard Survey Attachment

C.  $\underline{\text{DELETED PAGES}}$ . The following paragraphs are deleted from the specifications:

DIVISION 01 Section 01900 Submittal Register

COLD STORAGE FACILITY
Section 01300 and Submittal Register

2. The proposal due date of March 1, 2002, 2:00 P.M. Hawaiian Standard Time (HST) remains unchanged.

## APPENDIX A

LABORATORY REPORTS

[7488]

18

Brewer Environmental Services



## LABORATORY REPORT

April 24, 2001

Attention: Glenn Suzuki

Client Name: Okahara & Associates, Inc.

677 Ala Moana Boulevard, Suite 703

Honolulu, Hawaii 96813

Project Number: 20010215

Sample Received Date: Report Number: 4/23/2001 R00606-01

Kwajalein-Cold Storage Facility 4/24/2001

Date of Analysis:

Analyst: Clare Goo

Analysis: Asbestos Bulk Sample Identification Method: 40 CFR Ch. I (1-1-87 edition) Pt 763, Subpt. F App. A, pages 293-299

Steven Tanaka, Technical Manager

Misc. Part.

Calcite

Binder

Client Sample Number: 7490-01 Sample Description **Asbestos Present** Detected Fibrous Material Nonfibrous Material Cellulose <1%

Type: Particulate

Texture: Color:

Brittle Cream

Asbestos Type/ Percent

Chrysotile 5-10%

88703-A Lab ID:

Homogeneous: Z

Condition Received: Good

Client Sample Number: 7490-01 Lab ID: 88703-B Homogeneous: Texture: Type: Color: ö Particulate Spongy Brown Sample Description Asbestos Type/Percent Asbestos Present None detected Fibrous Material Nonfibrous Material None Misc. Part. Binder

Client Sample Number: 7490-02 Condition Received: Good Asbestos Present Fibrous Material Nonfibrous Material

Sample Description

None detected

Cellulose

<1%

Misc. Part.

Binder

Quartz

88704-A Lab ID: Texture: Color: Gray Hard cementitious Asbestos Type/ Percent

Homogeneous: Type: Z Particulate

Condition Received: Good

Client Sample Number: 7490-02 Lab ID: 887()4-B Homogeneous: Texture: Туре: Color: No Brown Tarry particulate Spongy and tacky Sample Description Asbestos Type/ Percent Asbestos Present Chrysotile 3-5% Detected Fibrous Material Nonfibrous Material Cellulose 3-5% Misc. Part. Binder Calcite Quartz Cork Tar

Condition Received:

Good

|   |  | Condition Received: Good                 | Conditi                   |
|---|--|--|---------------------------|
|   |  |  | H                         |
| Calcire   | Hancarda Type/ Terrerir                  |  | •                         |
| Calcite   | Ashastas Type / Parcent                  | Texture: Pubbory                         | 88709-A                   |
| Cellulose Binder                                      |  |  | Lab ID:                   |
| <1% Misc. Part.                                       |  | 7470                                     | Circlic Camp              |
| Fibrous Material Nonfibrous Material                  | Ashestos Present                         | le Niimher: 7400 07                      | Client Sample Number:     |
|   |  | Homogeneous: No Condition Received: Good | Ho<br>Conditi             |
|   |  |  |                           |
| Calcife   | Asbestos Type/ Fercein                   |  |                           |
| Quartz  | A -1 T / D                               |  | 88708-B                   |
| Cellulose Binder                                      | I TOLIC GEOGRAPH                         |  | I sk ID:                  |
| <1% Misc. Part.                                       | None detected                            | /490                                     | CHEIR Sample Number.      |
| Fibrous Material Nonfibrous Material                  | Ashestos Present                         |  | Cliant Samn               |
|   |  | Homogeneous: No Condition Received: Good | Ho<br>Conditi             |
|   |  |  | •                         |
| Qualitz<br>Calcite                                    | Asbestos Type/ Percent                   | Texture: Rubbery                         | 88708-A                   |
| Binder  |  | Sample Description Color: White          | Lab ID:                   |
| Fibrous Material Nonfibrous Material None Misc. Part. | Asbestos Present None detected           | Client Sample Number: 7490-06            | Client Samp               |
|   |  | Condition Received: Good                 | Conditi                   |
|   |  |  | Нс                        |
| Calcite   | Aspestos Type/ Fercent                   |  |                           |
| Quartz  | A -1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 |  | 88707                     |
|   | None detected                            |  | 1.34 ID:                  |
| Fibrous Material Nonfibrous Material None Misc. Part. | Asbestos Present                         | le Number: 7490-05                       | Client Sample Number:     |
|   |  | Homogeneous: No Condition Received: Good | He<br>Conditi             |
|   |  |  | 4                         |
| Calcite   | Asbestos Type/ Percent                   |  | 00700                     |
| Quartz  | }  |  | 88706                     |
| Binder  | None detected                            | Sample Description                       |                           |
| Fibrous Material Nonfibrous Material                  | Asbestos Present                         | le Number: 7490-04                       | Client Sample Number:     |
|   |  | Homogeneous: No Condition Received: Good | H <sub>c</sub><br>Conditi |
| Spider web  | tropeomo al pel a caccam                 | Type: Fibers w/ debris                   |                           |
| Synthetic Fibers Quartz Calcite                       | Ashestos Tyne / Percent                  | Color: White<br>Texture:                 | 88705-B                   |
| Cellulose Binder                                      | None detected                            |  | . I 4° I                  |
| Fibrous Material Nonfibrous Material                  | Asbestos Present                         | Client Sample Number: 7490-03            | Client Sampl              |
|   |  |  | Ho<br>Conditi             |
|   |  |  |                           |
| Calcite   | Asbestos Type/ Percent                   | Color: Brown Texture: Hard               | 88705-A                   |
| None Misc. Part.<br>Binder                            | None detected                            | Sample Description                       | 1.34 ID:                  |
| terial No   | Asbestos Present                         | Client Sample Number: 7490-03            | Client Sampl              |

Project Number: 20010215

|   |                                 | Cock                   | Collegion                           |
|---|---------------------------------|------------------------|-------------------------------------|
|   |                                 | Cood                   | Homogeneous:                        |
|   |                                 | Fibers                 | Туре:                               |
|   | Asbestos Type/Percent           |                        | 88712-B Texture:                    |
| 1,001   |                                 | Yellow                 | Lab ID: Color:                      |
| 80-90% Misc. Part. Mineral Wool Binder                  | None detected                   |                        |                                     |
| Fibrous Material Nonfibrous Material                    | Ashestos Present                | 7/00 10                | Client Sample Number:               |
|   |                                 | Good                   | Homogeneous: Condition Received:    |
|   |                                 | Larry particulate      | ı ype:                              |
| Calcite   | Asbestos Type/ Percent          | Tacky                  | oo/ 12-A Texture:                   |
| :   |                                 | Black                  | Color:                              |
| Mineral Wool Binder                                     | None detected                   | Sample Description     |                                     |
| erial Noi   | Asbestos Present                | 7490-10                | Client Sample Number: 7490-10       |
|   |                                 | No<br>Good             | Homogeneous:<br>Condition Received: |
|   | To Jest and the second          | Fibers                 | Туре:                               |
|   | Asbestos Type/ Percent          | Tellow                 | 88711-B Texture:                    |
| Mineral Wool Binder                                     | None detected                   |                        | Lab ID:                             |
| Fibrous Material Nonfibrous Material                    | Asbestos Present                | 7490-09                | Client Sample Number:               |
|   |                                 | Good                   | Condition Received:                 |
|   |                                 | Tarry particulate      |                                     |
|   | Asbestos Type/ Percent          | Tacky                  |                                     |
| 100 44  |                                 | Black                  | Color:                              |
| 30-40% Misc. Part.                                      | None detected                   | Sample Description     |                                     |
| Fibrous Material Nonfibrous Material                    | Asbestos Present                | 7490-09                | Client Sample Number:               |
|   |                                 | No<br>Good             | Homogeneous:<br>Condition Received: |
|   |                                 | Fibers                 | Туре:                               |
|   | Asbestos Type/ Percent          |                        | 88710-B Texture:                    |
| Mineral Wool Binder                                     |                                 | Yellow                 | Lab ID: Color:                      |
| Fibrous Material Nonfibrous Material 80-90% Misc. Part. | Asbestos Present None detected  | 7490                   | Client Sample Number:               |
|   |                                 | Good                   | Condition Received:                 |
|   |                                 | No                     |                                     |
| Carcite   | Chrysotile 5-10%                | Tarry particulate      |                                     |
| Fiber Glass Quartz                                      | Ashastas Tima / Darsant         | Tacky                  | 0-A Texture:                        |
| Mineral Wool Binder                                     | Detected                        | Sample Description     |                                     |
| erial Nor   | Asbestos Present                | 7490-08                | Client Sample Number:               |
|   |                                 | Good                   | Homogeneous:<br>Condition Received: |
| Calcite   | Asbestos Type/ Percent          | Rubbery<br>Particulate | 88709-B Texture:                    |
| Cellulose Binder<br>Ouartz                              |                                 | Cream                  | Lab ID: Color:                      |
| Fibrous Material Nonfibrous Material <1% Misc. Part.    | Asbestos Present  None detected | 7490-07.               | Client Sample Number: 7490-07       |
|   |                                 |                        | •                                   |

|  |                                 |   | Condition Received:                         |
|--|---------------------------------|---|---|
|  |                                 | No  | Homogeneous:                                |
| Calcite  | Asbestos Type/ Percent          | e: Kubbery                                      | Type:                                       |
| Cellulose Quartz   |                                 |   | 88718 Color:                                |
| Mineral Wool Binder  | None detected                   | Sample Description                              | Total                                       |
| aterial Nor  | Asbestos Present E              | er: 7490-16                                     | Client Sample Number:                       |
|  |                                 | d: Good   | Homogeneous:<br>Condition Received:         |
|  |                                 |   | * J P C .                                   |
|  | Asbestos Type/ Percent          |   | )mm   |
|  |                                 |   | R8717 Color:                                |
| 20-30% Misc. rart. Mineral Wool Binder   | None detected                   | Sample Description                              | 1.h 17.                                     |
| aterial Noi  | Asbestos Present F              | er: 7490-15                                     | Client Sample Number: 7490-15               |
|  |                                 | ss: No<br>d: Good                               | Homogeneous:<br>Condition Received:         |
| Calcite  | Aspestos Type/ Percent          | e: Particulate                                  | Type:                                       |
| Cellulose Quartz   |                                 | Gray  | Lab ID: Color:                              |
| rial Nom   | Asbestos Present  None detected | er: 7490-14<br>Sample Description               | Client Sample Number: 7490-14<br>  Sam      |
| The state of the s | <b>5</b>                        |   |   |
|  |                                 | is: No  | Homogeneous: Condition Received:            |
| Calcite  | Asbestos Type/ Percent          |   | Tyne:                                       |
| Quartz   |                                 | Gray  | Lab ID: Color:                              |
| <1% Misc. Part.  | None detected                   | Sample Description                              |   |
| <u>Fibrous Material Nonfibrous Material</u>  | Asbestos Present E              | er: 7490-13                                     | Client Sample Number: 7490-13               |
|  |                                 | ıs: No<br>ed: Good                              | Homogeneous: No<br>Condition Received: Good |
| Tar  |                                 | e: Particulate                                  | Type:                                       |
| Calcite  | Asbestos Type/ Percent          |   | 88714 Texture:                              |
| Cellulose Binder<br>Ouartz   |                                 | Gray  | Lab ID: Color:                              |
| <u>rial Noni</u><br>M  | Asbestos Present E              | er: 7490-12<br>Sample Description               | Client Sample Number:                       |
|  |                                 | 1   | Condition Received:                         |
|  |                                 | e: Fibers                                       | Туре:                                       |
|  | Asbestos Type/ Percent          | re:   | 88713-B Texture:                            |
| 80-90% Misc. Part. Mineral Wool Binder   | None detected                   |   | lah ID:                                     |
| erial No   | Asbestos Present E              | er: 7490-11                                     | Client Sample Number:                       |
|  |                                 |   | Homogeneous:<br>Condition Received:         |
| Quartz<br>Tar  | Asbestos Type/ Percent          | or: Diack<br>re: Tacky<br>re: Tarry particulate | 88713-A Texture:                            |
| 30-40% Misc. Part. Mineral Wool Binder   |                                 | Sample Description                              | Tah ID:                                     |
| Fibrous Material Nonfibrous Material   | Asbestos Present E              | er: 7490-11                                     | Client Sample Number: 7490-11               |

Project Number: 20010215 Report Number: R00606-01

|   |                                 |   | Transcription of the control of the |
|---|---------------------------------|---|---|
|   |                                 | Homogeneous: No Condition Received: Good    | Ho<br>Conditio  |
| Calcite   | Asbestos Type/ Percent          | Type: (Paint) and particulate               | 00/40-0   |
| Quartz  |                                 |   | EAD 1D:   |
| None Prisc. 1 at c. Binder                              | None detected                   | Sample Description                          |   |
| Fibrous Material Nonfibrous Material                    | <b>Asbestos Present</b>         | Sample Number: 7490-20                      | Client Sampl  |
|   |                                 | Homogeneous: No Condition Received: Good    | Condition   |
|   |                                 |   |   |
| Calcite   | Asbestos Type/Percent           |   | 88/48-A   |
|   |                                 | Color: White, red and silver                | Lab ID:   |
| <1% MISC. Fart.   | None detected                   | Sample Description                          | 1   |
| <u>laterial No</u>                                      | <b>Asbestos Present</b>         | le Number: 7490-20                          | Client Sample Number:   |
|   |                                 | Homogeneous: No Condition Received: Good    | Ho<br>Conditio  |
| Control   | indicates and per a career.     |   | •   |
| Quartz  | Ashestos Tune / Percent         | Texture: Hard cementificus                  | 88747-B   |
|   | None detected                   | Sample Description                          | lab ID:   |
| Fibrous Material Nonfibrous Material None Misc. Part.   | Asbestos Present                | le Number: 7490-19                          | Client Sample Number:   |
|   |                                 | Condition Received: Good                    | Condition   |
|   |                                 |   |   |
| Calcite   | Asbestos Type/ Percent          |   | 88'/4'/-A   |
|   |                                 | Color: White and silver                     | Lab ID:   |
| Cellulose Binder  | None detected                   | Sample Description                          |   |
| terial No   | Asbestos Present                | e Number: 7490-19                           | Client Sample Number:   |
|   |                                 | Homogeneous: No Condition Received: Good    | Ho<br>Conditio  |
|   |                                 | Type: Particulate                           |   |
| Calcite   | Asbestos Type/ Percent          |   | 88746-B   |
| Binder  |                                 | Color: Grav                                 | Lab ID:   |
| None Misc. Part.  |                                 | E Mulliber. /490-18                         | Chelit Samble Mulliber.   |
| Fibrous Material Nonfibrous Material                    | Ashestas Present                |   | Client Sampl  |
|   |                                 | Homogeneous: No<br>Condition Received: Good | Ho<br>Conditio  |
| Calcite   | Asbestos Type/ Percent          | Type: (Paint) and particulate               | 007.40.77   |
| Quartz  | 3                               |   | Lab ID:   |
| None Misc. Part.<br>Binder                              | None detected                   | Sample Description                          | ;<br>;  |
| terial Nor  | Asbestos Present                | e Number: 7490-18                           | Client Sample Number:   |
|   |                                 | Homogeneous: No Condition Received: Good    | Ho:<br>Conditio   |
| Calcite   | Asbestos Type/ Percent          |   | 88745   |
| Mineral Wool Binder                                     |                                 | Color: White                                | Lab ID:   |
| Fibrous Material Nonfibrous Material 30-40% Misc. Part. | Asbestos Present  None detected | Client Sample Number: 7490-17               | Client Sampl  |

Project Number: 20010215

Page 5 of 6

Client Sample Number: 7490-21 88749 Lab ID: Condition Received: Good Homogeneous: Texture: Color: Type: White, green and yellow Ö (Paint) and particulate Hard cementitious Sample Description Asbestos Type/ Percent **Asbestos Present** None detected Fibrous Material Nonfibrous Material Cellulose Misc. Part. Calcite Quartz Binder

Client Sample Number: 7490-22 88750 Lab ID: **Condition Received:** Homogeneous: Texture: Type: Color: Good ö White, green and yellow (Paint) and particulate Hard cementitious Sample Description Asbestos Type/ Percent Asbestos Present None detected Fibrous Material Nonfibrous Material Cellulose <u><1</u>% Misc. Part. Calcite Quartz Binder

(\*) indicates presumed material It is recommended that floor tile samples that are determined to contain no asbestos by Polarized Light Microscopy (PLM) be verified by Transmission Electron Microscopy (TEM).

The enclosed test results are valid only for the item(s) tested. This report may not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report must be reproduced in full and only with the permission of Brewer Environmental Services Industrial Hygiene Group.

Report Number: R00606-01 Project Number: 20010215



## Brewer Environmental Services

Industrial Hygiene Group

311B Pacific Street - Honolulu, HI 96817

Phone: (808)848-7895

Fax: (808)845-5267

## Chain of Custody/Laboratory Services Request

20010215

| Lab Report No: R   |  |             | BESIF      | ).:                   | 4-10  | (Samples re                                    | ceive        | ed wi                          | l be           | disca      | arded              | afte                                   | r 90      | days. | .) Pa        | age: / of: | <u></u> | •                |   |
|--|--|-------------|------------|-----------------------|-------|--|--------------|--------------------------------|----------------|------------|--------------------|--|-----------|-------|--------------|------------|---------|------------------|---|
| Client Informatio  | n  |             |            |                       |       | TURN AROUR                                     |              |                                |                |            |                    |  |           |       |              |            |         |                  |   |
| Client name:   | Chahaed  | 2 Associ    | ines,      | ı ne                  |       | (BASED ON WOR                                  | KING DAYS)   |                                |                |            |                    |  |           |       |              |            |         |                  |   |
| Address:   | e77 Dia M  | OHEM B      | LVD, SU    | re 103                |       | Please circle ch                               | , /          |                                |                | =          |                    |  |           |       |              |            |         |                  |   |
| richia de la compania del compania del compania de la compania del la compania de la compania del la compan | ر نناياماما  | MI. GER     | .13        |                       | 11    | < 24 hou<br>* Rrior notificati                 | ion required |                                | 0              | soil       |                    |  |           |       |              |            |         |                  |   |
|  | ,  |             |            |                       |       | for expedited                                  | services.    |                                | 7400           | wipe       |                    |  |           |       |              |            |         |                  |   |
| Telephone Numb   | er: ( <u>808)</u> 531  | 4- 12-24 Fa | 1x: (      | 5>1-3 <sub>1</sub> 51 | -     | 24 hour<br>* Prior notificati<br>for expedited | ion required | (Bulk Asbestos Identification) | NIOSH          | paint      |                    |  |           |       |              |            |         |                  |   |
| Contact Person:  | HIERLY S   | UZUKI       |            |                       |       | •  |              | entif                          | (uo            | air        |                    |  |           |       |              |            |         |                  |   |
| Project Name/Site  | e: KWADALE   | 11 - CO15   | o stora    | ere fac.              | - [[  | 2 Day  |              | bl se                          | ıtrati         | .;         |                    | als                                    |           |       |              | .y)        |         |                  | • |
| Sampler: Tod   |  |             |            |                       |       | 5 Day  | -            | besto                          | Concentration) | 7420 (AA): | ch)                | TCLP 8 RCRA Metals                     | ınly      |       |              | specify)   |         |                  |   |
| Report will be ser   |  |             |            |                       |       | 10 Day   | <b>y</b>     | k As                           | ű              | 742(       | st Ea              | CRA                                    | Lead Only |       | gy           | se s       |         |                  |   |
| Please: □Phone   | □Fax prelimir  |             | Air Sample | Condition of          | Bull  | (Fiber   | EPA          | )<br>(Ci                       | 8 R(           |            |                    | biolc                                  | (please   |       |              |            |         |                  |   |
| Client Sample ID   |  | Number of   | Date       | Time                  | Sampl | le Volume in                                   | Sample       | PLM (                          | CM             | Lead [     | Metals (List Each) | CLP                                    | TCLP      | TEM   | Microbiology | Other      |         | 7.               |   |
| Number 1490-154-01   | Lab ID #   | Containers  | Sampled    | Sampled               | Matri |  | Received     | 3                              | - P            | 7          | Σ                  | Ē                                      | T         | L L   | Σ            | 0          |         | -                |   |
|  | The same and a new and same and the same and | <del></del> | 4-21-01    | (MA)                  | Bille | -  |              | X                              |                |            |                    | -                                      |           |       |              |            |         | -}               |   |
| -02  | 77676E   |             | 11         | 11                    | 11    |  |              | ٨                              |                |            |                    |  |           |       |              |            |         |                  |   |
| - 03   | 86705  |             | 11         | "                     | 34    |  | 200          | ٨                              |                |            |                    |  |           |       |              |            |         |                  |   |
| O4   | 88100  |             | <u> </u>   | બ                     | • • • |  |              | X                              |                |            |                    |  |           |       |              |            |         | t <sub>e</sub> . |   |
| -05  | 937 TOT  | 1           | ١,         | ~!                    | ١,    |  |              | ٨                              |                |            |                    |  |           |       |              |            |         |                  |   |
| -06  | 86708  | 1           | ~(         | `1                    | *1    | _  |              | X                              |                |            |                    |  |           |       |              |            |         |                  |   |
| -07  | 88709  | 1           | ~(         | 4                     | ٠,    |  |              | Х                              |                |            |                    |  |           |       |              |            |         |                  |   |
| - 09   | 88710  | 1           | 11         | 11                    | U     |  |              | X                              |                |            |                    |  |           |       |              |            |         |                  | , |
| -09  | 30.71  | ,           | ,,         | 11                    | ¥ 1   |  |              | X                              |                |            |                    |  |           |       |              |            |         |                  |   |
| -10  | 38712  | ,           | ,,,        | ••                    | 1.    |  |              | ×                              |                |            |                    |  |           |       |              |            |         |                  |   |
| Relinquished by:   | 16 K.S.  | d by:       |            | Date:                 |       |  |              | Anal                           | yzed           | hv.        | -2                 |  |           | e tra |              |            |         |                  |   |
|  |  |             | Time:      |                       |       |  | Date         |                                | <u>.</u><br>4  |            |                    | 10                                     |           |       | <del></del>  |            |         |                  |   |
| Print name: Todal Salcoda Time: Print name:  Received by: A. Id ul Chap Date: 42301 Received by:   |  |             |            |                       |       | : Date:  |              |                                |                |            |                    | ······································ |           |       |              |            |         |                  |   |
| Print name:  |  |             | Time:      |                       |       |  |              |                                |                |            | ************       |  |           |       |              |            |         |                  |   |



Client Information

## **Brewer Environmental Services** Industrial Hygiene Group

311B Pacific Street - Honolulu, HI 96817

Client name: OKAHARA 2 ASSOCIATES, INC.

Address: 677 ALA MOMEN BLVD, SUICE 703

Telephone Number: (808) 534-1224 Fax: (808) 531-3:51

Project Name/Site: KWAJALEIN - COLD STORAGE PAC.

Number of

Containers

Date

Sampled

4-21-01

. 1

( )

\* 1

4

Time:

Time:

Date: 4/23/01

Time

Sampled

(AM)

. 1

. .

11

1/

11

Print name:

Received by:

Print name:

Date: 4-22-01 Relinquished by:

11

Time:

X

Contact Person: \_ HIERER SUZUKI

Please: OPhone OFax preliminary results.

BES-IH

Lab ID#

Sampler: Todes Sakude

Report will be sent to Client address.

Client Sample ID

Number

-12 -13

-15

-160

-18

-19

-20

-7-1

Print name: Todal Sakuda

Received by: A. Hum

88150

Relinguished by:

Print name:

1490-101-11

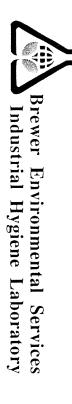
HOLOLUW, LAI. 96813

Phone: (808)848-7895 Fax: (808)845-5267

## Chain of Custody/Laboratory Services Request

20010215 Lab Report No: ROOGOO BESIH Project No.:

7490 (Samples received will be discarded after 90 days.) Page: 2 of: 5. **TURN AROUND TIME** REQUIRED: (BASED ON WORKING DAYS) Please circle choice below: < 24 hour \* \* Prior notification required PCM (Fiber Concentration) NIOSH 7400 for expedited services. 24 hour \* \* Prior notification required for expedited services. 2 Day **TCLP 8 RCRA Metals** specify) 5 Day - Lead Only Metals (List Each) 10 Day (please s Microbiology PLM (Bulk Air Sample Condition of Sample Volume in Sample Matrix Liters Received X BULK N.F 11 .. • • 4 " Date: Analyzed by: Time: Date: Date:



## LABORATORY REPORT

April 24, 2001

Attention: Glenn Suzuki

Client Name: Okahara & Associates, Inc.

677 Ala Moana Boulevard, Suite 703 Honolulu, Hawaii 96813

Project Number: 20010215

Report Number: R00606-01 Sample Received Date: 04/23/2001 Date Analyzed: 04/23/2001

Site: Kwajalein-Cold Storage Facility

Analyst: Amy Hilscher

Matrix: Paint Chips Method: EPA 7420

Lab ID Reporting Limit Uwe Baumgartner, Ph.D., Technical Manager Total Lead (Wt %)

Sample Number

| 7490-14P | 7490-13P | 7490-12P | 7490-11P | 7490-10P | *7490-09P | 7490-08P | 7490-07P | *7490-06P | 7490-05P | 7490-04P | 7490-03P | 7490-02P | 7490-01P | MITTINE |
|----------|----------|----------|----------|----------|-----------|----------|----------|-----------|----------|----------|----------|----------|----------|---------|
| 88732    | 88731    | 88730    | 88729    | 88728    | 88727     | 88726    | 88725    | 88724     | 88723    | 88722    | 88721    | 88720    | 88719    | Lab ID  |
| 0.0050   | 0.0050   | 0.050    | 0.0050   | 0.13     | 0.84      | 0.025    | 0.050    | 0.0074    | 0.0050   | 0.050    | 0.25     | 0.026    | 0.50     | (Wt %)  |
| 0.024    | 0.0059   | 0.51     | < 0.0050 | 0.97     | 8.9       | 0.12     | 0.24     | 0.031     | 0.065    | 0.52     | 1.2      | 0.19     | 1.9      | (% 1 W) |

| 7490-26P | 7490-25P | 7490-24P | 7490-23P | 7490-22P | 7490-21P | 7490-20P | 7490-191 | *7490-18P | 7490-17P | 7490-16P | 7490-15P | Sample<br>Number             |
|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|------------------------------|
| 88744    | 88743    | 88742    | 88741    | 88740    | 88739    | 88738    | 88737    | 88736     | 88735    | 88734    | 88733    | BES<br>Lab ID                |
| 0.050    | 0.0050   | 0.0050   | 0.0050   | 0.0050   | 0.0050   | 0.025    | 0.010    | 0.0059    | 0.0050   | 0.0050   | 0.025    | Reporting<br>Limit<br>(Wt %) |
| 0.44     | < 0.0050 | < 0.0050 | < 0.0050 | 0.0062   | < 0.0050 | 0.13     | 0.085    | 0.023     | 0.011    | < 0.0050 | 0.17     | Total Lead<br>(Wt %)         |

<sup>\*</sup>Results may be inconclusive due to insufficient sample quantity

# AIHA Laboratory #101811 Certificate #513

Brewer Environmental Services Mailing Address: 311 B Pacific Street Honolulu, Hawaii 96817 Phone: (808) 848-8866 Fax: (808) 847-5267



Received by:

Print name:

## **Brewer Environmental Services** Industrial Hygiene Group

311B Pacific Street - Honolulu, HI 96817

Phone: (808)848-7895

Fax: (808)845-5267

23/01 Received by:

Print name:

Date: 4

Time:

| Chain | of | Custody | //Laboratory | Services | Request |
|-------|----|---------|--------------|----------|---------|
|-------|----|---------|--------------|----------|---------|

10010215 Lab Report No: ROCOCO BESIH Project No.: 7490 (Samples received will be discarded after 90 days.) Page: 3 of: 5. **TURN AROUND TIME** Client Information **REQUIRED:** Client name: CKAHARA 2 ASSOCIACES, INC. (BASED ON WORKING DAYS) Please circle choice below: 677 ALA MOMIN BLVD, SUICE 703 < 24 hour \* HOLOLULU , MI. 96813 \* Prior notification required PCM (Fiber Concentration) NIOSH 7400 for expedited services. (Bulk Asbestos Identification) 24 hour \* Telephone Number: ( 808) 534-1224 Fax: (808) 531-3151 \* Prior notification required for expedited services. Contact Person: MICHEL SUZUKI 2 Day Project Name/Site: KWAJALETM - COLD STORAGE FAC. Lead EPA 7420 (AA): **TCLP 8 RCRA Metals** Other (please specify) 5 Day Sampler: Todas Sakudia - Lead Only 10 Day Report will be sent to Client address. Microbiology Please: OPhone OFax preliminary results. Air Sample Condition of Client Sample ID BES-IH Number of Date Time Sample Volume in Sample Number Lab ID# Containers Sampled Sampled Matrix Liters Received 86119 7490- 017 4-27-06 (mm) BULL -022 11 . . ~0:3f 11 11 . . -040 (1 (1 -05P "( 16 -06P .1 41 乂 -OIP 4 .. V -080 (( 4 -09P u " 4 -10P 4 4 . ( Date: 4-72-01 Relinquished by: Relinguished by: Date: Analyzed by: Print name: Todal Spicuolis Time: Print name: Time: Date:

Date:

Time:



- 17p

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-19p

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## **Brewer Environmental Services**

Industrial Hygiene Group

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Chain of Custody/Laboratory Services Request

| Lab Report No: R   | Phone: (808                   | •                 |                 | :: (808)84<br>H Project No | 20                       | 3010215   | _ (Samples re  | ceive                    | d wi         | II be                                 | disca              | ardec              | l afte           | г 90 | days         | .) Pa           | age: <u>4</u> of: | <u>5</u>     |       |
|--|-------------------------------|-------------------|-----------------|----------------------------|--------------------------|---|--|--------------------------|--------------|---------------------------------------|--------------------|--------------------|------------------|------|--------------|-----------------|-------------------|--------------|-------|
| Client Informatio  Client name:  Address:                          | KAHACA                        | charin 3          | LVD, 50,        |                            |                          | TURN AROU REQUII (BASED ON WO) Please circle ch  < 24 hor * Rrior notificat for expedites | RED:<br>RKING DAYS)<br>tolce below:<br>ur *<br>tion required |                          | 7400         | ipe soil                              |                    |                    |                  |      |              |                 |                   |              |       |
| Telephone Number Contact Person: _ Project Name/Site Sampler:Today | Hiener s                      | uzuki<br>M - leif | ,               |                            |                          | 24 hou<br>* Prior notificat<br>for expedited<br>2 Day<br>5 Day                            | tion required<br>d services.                                 | Asbestos Identification) | エー           | 0 (AA): air (paint) w                 |                    | Metals             | July             |      |              | specify)        |                   |              | ·     |
| Report will be ser<br>Please: □Phone<br>Client Sample ID<br>Number | □Fax prelimir BES-IH Lab ID # |                   | Date<br>Sampled | Time<br>Sampled            | Sam <sub>t</sub><br>Matr | ole Volume in   | Condition of   | u<br>K                   | PCM (Fiber C | Lead EPA 7420 (AA):                   | Metals (List Each) | TCLP 8 RCRA Metals | TCLP - Lead Only | TEM  | Microbiology | Other (please s |                   |              |       |
|  | 86729                         | 1                 | 4-31-01         | ( Hid.)                    | BUL                      |   |  |                          |              | X                                     |                    |                    |                  |      |              |                 |                   |              |       |
|  | 55780<br>64-71                |                   | 11              | 11                         |                          |   |  |                          |              | X.                                    |                    |                    |                  |      |              |                 |                   |              |       |
| - 13P<br>- 14P   | 8573<br>87732                 |                   | .,              | .,                         | ()                       |   |  |                          |              | <u> </u>                              |                    |                    | _                |      |              |                 |                   | 5/a,11       | - 44. |
| · · · · · · · · · · · · · · · · · · ·                              | 98733                         |                   | . (             | 11                         |                          |   |  |                          |              | <u>×</u><br>×                         |                    |                    | -                |      |              |                 |                   |              |       |
| - 1647   | 88734                         | ١                 | 11              |                            | 11                       |   |  |                          |              | $\frac{\hat{\mathbf{x}}}{\mathbf{x}}$ |                    |                    |                  |      |              |                 |                   | <del> </del> |       |

|                             | 2             |                  |       |              |
|-----------------------------|---------------|------------------|-------|--------------|
| Relinquished by: Clock. St. | Date: 4-71-01 | Relinquished by: | Date: | Analyzed by: |
| Print name: Todal Sakucha   | Time:         | Print name:      | Time: | Date:        |
| Received by: A HILM         | Date: 4/23/01 | Received by:     | Date: |              |
| Print name:                 | Time:         | Print name:      | Time: |              |

X



## **Brewer Environmental Services** Industrial Hygiene Group

311B Pacific Street - Honolulu, HI 96817

Phone: (808)848-7895 Fax: (808)845-5267

Chain of Custody/Laboratory Services Request

| Lab Report No: ]                | ROO606   | -01                                      | BESI     | H Project N  |   | 7490   | (Samples re  | eceiv                    | ed w                      | ill be                          | disc               | arde        | l afte    | r 90 | days         | .) Pa         | age: <u>5</u> of: | <u>5</u> . |
|---------------------------------|--|--|----------|--------------|---|--|--|--------------------------|---------------------------|---------------------------------|--------------------|-------------|-----------|------|--------------|---------------|-------------------|------------|
| Address:                        | CKAHARA ETT ALA M HOLOLULU ,  Der: (808) 53 HIEMAL S te: KINADALE  | 101. 968 11. 968 11-1224 12016 1514-1010 | LVD , 50 | ice 703      |   | TURN AROU REQUIR (BASED ON WOF Please circle ch  * Pylor notificat for expedited 24 hour * Prior notificat for expedited 2 Day 5 Day | ED:  KKING DAYS)  oice below:  r *  ion required  services.  *  on required  services. | Asbestos Identification) | Concentration) NIOSH 7400 | 420 (AA): air (paint) wipe soil |                    | RCRA Metals | Lead Only |      |              | specify)      |                   |            |
| Please: OPhone Client Sample ID | □Fax prelimi   | nary results.  Number of                 | Date     | Time         | Sampl                                   | Air Sample<br>e Volume in  | Condition of Sample  | (Bulk                    | 4 (Fiber                  | Lead EPA 7420                   | Metals (List Each) | ∞           |           | 1    | Microbiology | Other (please |                   |            |
| Number 7490 P                   | Lab ID#  | Containers                               | Sampled  | Sampled      | Matrix                                  | x Liters   | Received   | PLM                      | PCM                       | Lea                             | Met                | TCLP        | TCLP      | TEM  | Mic          | Othe          |                   |            |
| - 220 38                        | 55140  | ,  | 401-01   | (MA)         | BULK                                    |  |  |                          |                           | X                               |                    |             |           |      |              |               |                   |            |
| - 23分五百                         | 86741  | ,  | 11       | 11           | ''                                      |  |  |                          |                           | X                               |                    |             |           |      |              |               |                   |            |
| -34p 2007                       | DESTRUCTION OF THE PROPERTY OF | 1  | NI.      | 1,           | **                                      |  |  |                          |                           | X                               |                    |             |           |      |              |               |                   |            |
| - 350                           | 88748  | ,  | 11       | 1,           | • |  |  |                          |                           | X                               |                    |             | -         |      |              |               |                   |            |
| - Zep                           | 887144   | 1  | . (      | • (          |   |  |  |                          |                           | ×                               |                    |             |           |      |              |               |                   |            |
|                                 |  | · ·                                      | •        | `            |   |  |  |                          |                           | <u> </u>                        |                    |             |           |      |              |               |                   |            |
|                                 |  |  |          |              |   |  |  |                          |                           |                                 |                    |             |           |      |              |               |                   |            |
|                                 |  |  |          |              |   |  |  |                          |                           |                                 |                    |             |           |      |              |               |                   |            |
|                                 |  |  |          |              |   |  |  |                          |                           |                                 |                    |             |           |      |              |               |                   |            |
|                                 | <u> </u>   | 2  |          | <u> </u>     |   |  |  |                          |                           |                                 |                    |             | ]         |      |              |               |                   |            |
| Relinguished by:                | RUE, S   | Date:                                    | 4-22-01  | Relinquished | d by:                                   |  | Date:  |                          |                           |                                 | Anai               | yzed        | by:       |      |              |               |                   |            |
|                                 | el Spicione  | Time:                                    |          | Print name:  |   |  | Time:  |                          |                           |                                 | Date               |             | <u> </u>  |      |              |               |                   |            |
| Received by: 🔑                  | A. Hull  | Date:                                    | 4.23.01  | Received by  | :                                       |  | Date:  |                          |                           |                                 |                    |             |           |      |              |               |                   |            |
| Print name:                     |  | Time:                                    |          | Print name:  |   |  | Time:  |                          |                           |                                 |                    |             |           |      |              |               | /                 |            |
|                                 |  |  |          |              |   |  |  |                          |                           |                                 |                    |             |           |      |              |               |                   |            |

## HUB TESTING LABORATORIES

7302.

THE SERVICET

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The second of the second of

## onsulting and Testing m ngineers

95 Beaver Street - Waltham, Mass. 02154 (617) 893-8330

Prepared For ٠. Johnson Controls World Se Kwajalein Support Project 1761 Services, Inc.

Post Office Box APO AP 96555

Asbestos Materia Kwajalein Island Kwajalein Atoll Materials Island

Assessment

Survey

Project

Subcontract No.: 43 RFP-HSV-AK-453

Line Item No.: 05

Prepared By ••

Vice duH Predr Testing President CX H воује Laboratories,

Waltham, Beaver K Street 02154

Inc.

## ASBESTOS SURVEY REPORT

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THE VEHICLET

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Building Number: 610

Building Building Warehouse, Cold Storage

Area:

6,560 Sq. Ft. Kwajalein Island Kwajalein Atoll Ft. Island,

Date of Inspection: February 14, 1992

Based visual in the on the best increinspection, asbestos following locations. information containing available materials and a thorough were found

Interior Walls of Building

Material: Tar Paper Quantity: Throughout Building Condition: 5 - 10% damaged

Sample Numbers:

## BULK SAMPLE SUMMARY

Sample Sample Code: 019

Number Material

Tar Paper

Color: Black

Constituents

mineral chip cellulose chrysotile 

opaques

THE PROPERTY OF :3215 :1215 20 :3218 . :3215 • :3215 :3215 90 :3218 7=0 المد ادلمه المديمة 7447 SISE: 01 00 9 PMM ۵ SE101 :3215 SPORT LINE LA TUBE 5 coreede ナトマリタ ا المعد إسلم المد وسهد TON SUPER 01 00 Glas behich 7 Transles server X Φ 0 7110h :3215 3 stapostrogonas world DOL 8 W 2 J Docu Hals bion ONCTIONAL SPACE D ٤ न प्राचान 019 SAMOLE NUMBER HOMOCENEOUS MAZ WALERIAL/LOCATION NON LEY NON LON LAND NON LAND The Control of the Co MISCANCE TO SOLVEN TO SOLV AKLINEDO OUNDO COMMENTS PHOTO ₽ ASBESTOS X/N MILDING DESCRIPTION: ( Show "HOJECT: 610 tong છે SIGNATURE ब्र<del>ी</del> PUPORT FOR: Johns DATE: 14 Esharet 1992 INSPECTOR: NK KUB TESTRO LABORATORIES

7 . EOR -

Bldg. 610

# HOMOGENEOUS MATERIAL LOG

|  |  |   |   | T |  |  |  |  | 1 | T |  |  |  |  |  |   |  |  |  |           |              |                     |                |             |               |
|--|--|---|---|---|--|--|--|--|---|---|--|--|--|--|--|---|--|--|--|-----------|--------------|---------------------|----------------|-------------|---------------|
|  |  |   | , |   |  |  |  |  |   |   |  |  |  |  |  |   |  |  |  |           |              | on Walls + Coilings | Tar Paper      | Description |               |
|  |  | 1 |   |   |  |  |  |  | + |   |  |  |  |  |  | 1 |  |  |  |           | 4            |                     | l              | Sample<br># |               |
|  |  |   |   |   |  |  |  |  |   |   |  |  |  |  |  |   |  |  |  | cold Bert | cold Paultry | Transfea room       | Transfer comm  | Description |               |
|  |  |   |   |   |  |  |  |  |   |   |  |  |  |  |  |   |  |  |  | k         | <b>\</b>     | X                   | 7              | Y/N         | 1             |
|  |  |   |   |   |  |  |  |  |   |   |  |  |  |  |  |   |  |  |  |           | <u> </u>     | 12                  | ٢              | ardilles    | ;<br> -<br> - |
|  |  |   |   |   |  |  |  |  |   |   |  |  |  |  |  |   |  |  |  |           | +            | 十                   | Transfed Rooms | 10          | 3             |
|  |  |   |   |   |  |  |  |  |   |   |  |  |  |  |  |   |  |  |  |           | 1            | 1                   | X              | 1/X         | •<br> -       |

B1ds 610

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## ASBESTOS SURVEY REPORT

Building Number:

Building Building Name: Warehouse, Cold Storage

Area:

4,320 Sq. Ft. Kwajalein Island, Kwajalein Atoll

Date of Inspection: February 14, 1992

Based visual in the on the Dest Inspection, asbestos following locations. information containing available materials and were a thorough were found

Flour Room

Material: Hard Pack Quantity: 35 elbows Condition: Good Sample Number(s): 4 Packed ed Elbows and and fittings Fittings

elbows

Note: The construction material storage is identified as condition and as a resul sample, care should be taken not transite prior to altera alterations or demolition result not being able taken to verify that this cement however however on the walls owever due to being able t to collect of the fr material frozen cold s. S. a

## BULK SAMPLE SUMMARY

| 4.               | ωΝ                          | H  | sample Number    |
|------------------|-----------------------------|--|------------------|
| Pipe Fittings    | Textured Foam Textured Foam | Color: Tan                                 | Material         |
| amosite<br>CaCo3 | Same<br>Same                | glass fiber mineral chip opaques cellulose | Constituents     |
| 30-40<br>60-70   |                             | 20-30<br>10-20<br>5-10<br>0-5              | А<br>Л<br>І<br>Л |

Color:

13215 SISE: **3**2 :3215 200 :3215 00 SIZES Ind placed filthings 212E: 304 35 Σ æ الماردة ا show . SE JN Slew 2 resters 019 51 x0h :3215 2 المعيناد المعلم 500 2003 SIZE: 38X50 2 2 Transite Courte ومددما 7 5 1 the bac on linety **り** 019 0 Y state of state SISE: 30X50 0 دمستطو W 44 X 0 N Tigueter and عاصف من المعل 21x38:321S المستماع المستميلة W 212-1-07 - 41/1A41 JN λ ठ NUCTIONAL SPACE SOUL OF ASSET HONGENEOUS MAT. SAMOLE WINES ! And Children MATERIAL/LOCATION ALP EAROSTON TW Artenno Ocenno A CA STANCE STAN COMMENTS ASBESTOS PHOTO BULLDING DESCRIPTION: 1 stant PROJECT: Know SIGNATURE: क्रीम REPORT FOR: DATE: 14 FL 1192 INSPECTOR: DUK ESIROTARORAL DISTRET BUH

Blds 612

# HOMOGENEOUS MATERIAL LOG

|                                      |                | 7 7  |
|--------------------------------------|----------------|--|
|                                      |                | Homogeneous Area Description Transit  Species Foam  75% titlings   |
|                                      |                | Sample #   |
|                                      | ┞╀╀╀┼┼┼┼┼┼┼┼┼  |  |
|                                      |                | Sample Description Y Transfer room  Freeze # 2 Freeze # 2 France com   |
|                                      |                | ASP (NASP (N |
| ++++++++++++++++++++++++++++++++++++ |                | Sample #   |
| <del></del>                          | <del>╻╻╻</del> |  |
|                                      |                | Description  Frezer */  Frezer */  Frezer */   |
| <del></del>                          |                | 7.5 X X X X X X X X X X X X X X X X X X X  |

W. Flour Rm

KWAJALEIN ENVIROMENT

## ASBESTOS SURVEY REPORT

トミク マミエンコトロトコ

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Number: 701

Building Building Building Area: Name: Warehouse/Ice 7,360 Sq. Ft. 7,360 Sq. Plant

Island,

Kwajalein Islan Kwajalein Atoll

Date Of. Inspection: February 14, 1992

visual in the on the best Initial inspection, asbestos following locations. information containing available materials were a thorough were found

Material: Tar Pape Quantity: 975 Sq.F Condition: Approx. Sample Number(s): 1 Storage, Sq.Ft Paper over Cork Insulation on Ceiling Transfer 5% damaged

## BULK SAMPLE SUMMARY

Sample Sample Code: 701

Number Material

Tar Paper on Cork

Color: Brown/Black

Constituents

cellulose mineral chip chrysotile 10-15 10-20 50-60

glass opaques fiber 10-15 trace

21 x 02 :3215 MO ACIM 01X 02 SIZE W74 934 בפארמקוב SIZE: 20×30 Lound MSA ON 4404 SIZE: 31X 40 æ 1474 IV الجورير فالمدود 212E: 25420 MOR BOW Shows 44103 SISE: \$7xP وبالمد प्रधर 1509 SIZE: KEKIS MAYORALSE אם שכחר 200 21 X 52 : 32 IS ٤ w 7 دمستع a 0 â SISE: 30 K 50 carned Han 7994 MO ACK لوميد Shx\_S/ SIZE W (שוווין כ 101 Ø 7 1 Maria (No. 1) A CONTRACT OF STATE O The state of the s SAMPLE NUMBER MATERIAL/LOCATION COMMENTS UNCTIONAL SPACE ASBESTOS IN ENVIROMENT OLOHd BUILDING DESCRIPTION: 154 PROJECT: # 701 SIGNATURE: DATE: 14 February 1992 INSPECTOR: Dek フロ REPORT FOR: tideetling Suffen pas Buitlanuag HUS TESTING LABORATORIES

AGE 13/16

17CH. 100 78303554

# HOMOGENEOUS MATERIAL LOG

|          |  | Homogeneous Area Description Tax pupus and cank |
|----------|--|---|
|          |  | Sampre  |
|          |  | cheese steage transtea quice                    |
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|          |  | ν μ = 10 μ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ  |
|          |  | Description  chess starage  trans her are       |
| <b> </b> |  |   |

| T  | CONTRACTOR   |     | ΓOR                     | CONTRAC |       |                                   | SE AND WATERTANKS   | LOCATION      |                         |                   |
|--|--|-----|-------------------------|---------|-------|-----------------------------------|---|---------------|-------------------------|-------------------|
| (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q)  01780 SD-18 Records  As-Built Drawings  FIO  As-Built Record of Equipment and  Materials  Warranty Management Plan  Warranty Tags | V C T L A O S R C C T T F F C C C C CONTR/ C CONTR/ C CONTR/ C CONTR/ C C C C C CONTR/ C C C C CONTR/ C C C C C CONTR/ C C C C CONTR/ C C C C C CONTR/ C C C C C C C C C C C C C C C C C C C | ()  | APPROVAL MATINEEDED NEE | SC      | O V T | A<br>R<br>A<br>G #<br>R<br>A<br>P | DESCRIPTION   | 8 P E C 8 E C | T R A N S M I T T A L N | A C T I V I T Y N |
| As-Built Drawings FIO As-Built Record of Equipment and Materials Warranty Management Plan Warranty Tags  |  | ) ( | (h)                     | (g)     | (f)   | (e)                               | (d)   | (c)           | (b)                     | (a)               |
|  |  |     |                         |         |       |                                   | As-Built Drawings FIO As-Built Record of Equipment and Materials Warranty Management Plan Warranty Tags | 01780         |                         |                   |

| TITLE AN                            |         |           |                                  |                   |                         | CONTRAC | TOR                      |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|-------------------------------------|---------|-----------|----------------------------------|-------------------|-------------------------|---------|--------------------------|--------------------------|---------------------|----------------------|------|----------------------|----------------------------------|-------------|----------------------|--|---------|
| FY01 I                              | RDT     | &E RE     | PAIR WATER TANKS, USAKA          |                   | •                       |         |                          |                          |                     |                      | •    |                      |                                  |             |                      |  |         |
|                                     |         |           |                                  |                   | G<br>O<br>V             | SC      | CONTRACTO                | R:<br>TES                | CON                 | NTRACTOR<br>ACTION   |      | APF                  | PROVING AU                       | THOR        | RITY                 |  |         |
| A N C S S N N I I I I T Y L N O C C | 1       | SPEC SECT | DESCRIPTION<br>ITEM SUBMITTED    | P A R A G R A P H | C L A R A / E R E V W R | SUBMIT  | APPROVAL<br>NEEDED<br>BY | MATERIAL<br>NEEDED<br>BY | A C T I O N C O D E | DATE<br>OF<br>ACTION | FROM | DATE FWD<br>TO OTHER | DATE RCD<br>FROM OTH<br>REVIEWER | ACTION CODE | DATE<br>OF<br>ACTION | MAILED<br>TO<br>CONTR/<br>DATE RCD<br>FRM APPR<br>AUTH | REMARKS |
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|                                     |         |           | As-Built Drawings                |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                                     |         |           | FIO                              |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                                     |         |           | As-Built Record of Equipment and |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
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|                                     |         |           | Warranty Management Plan         |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                                     |         |           | Warranty Tags                    |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                                     |         |           | Final Clean-Up                   |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                                     | 01      | 1900      | SD-01 Data                       |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                                     |         |           | Equipment Data                   |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                                     |         |           | FIO                              |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
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|                                     |         |           | FIO                              |                   |                         |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
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|                        | LOCATION        |                                   |                   |                               | CONTRAC | TOR                      |                          |                     |                      |      |                      |                                  |             |                      |  |         |
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| FY01 R                 | DT&E RE         | PAIR WATER TANKS, USAKA           | •                 |                               |         |                          |                          | _                   |                      |      |                      |                                  |             |                      |  |         |
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|                        | 01900           | Inspection of Existing Conditions |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | FIO                               |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Test Resport                      |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | GA                                |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | SD-18 Records                     |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Dust Control                      |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | GA                                |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Excavation/Trenching Clearance    |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | FIO                               |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Condition of Contractor's         |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Operation or Storage Area         |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        | 02315           | SD-09 Reports                     |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Testing                           |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | FIO                               |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        | 03150           | SD-01 Data                        |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Expansion Joint Sealant           |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | GA                                |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
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|                        |                 | Expansion Joint Sealant           |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | FIO                               |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | SD-06 Instructions                |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Expansion Joint Sealant           |                   |                               |         |                          |                          | L                   |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | FIO                               |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | SD-14 Samples                     |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | Expansion Joint Sealant           |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |
|                        |                 | FIO                               |                   |                               |         |                          |                          |                     |                      |      |                      |                                  |             |                      |  |         |

|   | LOCATION        |                                    |                   |                 | CONTRAC | TOR                      |                          |  |                      |      |          |                                  |             |                      |  |         |
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| FY01 R  | DT&E RI         | PAIR WATER TANKS, USAKA            |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 |                                    |                   | G<br>O          |         | CONTRACTO<br>HEDULE DA   |                          | CON  | NTRACTOR<br>ACTION   |      | APF      | PROVING AU                       | THOR        | ITY                  |  |         |
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|   | 03200           | SD-04 Drawings                     |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | Concrete Reinforcement System      |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | FIO                                |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | SD-08 Statements                   |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | Welding                            | 1.3               |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | FIO                                |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | SD-13 Certificates                 |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | Reinforcing Steel                  | 2.1               |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | FIO                                |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   | 03300           | SD-08 Statements                   |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | Mixture Proportions                | 1.8               |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | GA                                 |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
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|   |                 | Testing and Inspection for         | 3.14              |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
| $-\!$ |                 | Contractor Quality Control         |                   |                 | ļ       | ļ                        |                          | L  |                      |      |          |                                  |             |                      |  |         |
| $-\!$ |                 | GA                                 |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | SD-13 Certificates                 |                   |                 |         | <u> </u>                 |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | Qualifications                     | 1.4               |                 |         | <u> </u>                 |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | GA                                 |                   |                 |         | <u> </u>                 |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | SD-14 Samples                      |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | Surface Retarder                   |                   |                 |         | <u> </u>                 |                          |  |                      |      |          |                                  |             |                      |  |         |
| $-\!\!\!\!\!+$  |                 | FIO                                |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   | 03314           | SD-06 Instructions                 |                   |                 |         | <u> </u>                 |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | Test reports for watertightness of |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |
|   |                 | concrete water tanks               |                   |                 |         |                          |                          | $ldsymbol{ldsymbol{ldsymbol{ldsymbol{eta}}}$ |                      |      |          |                                  |             |                      |  |         |
|   |                 | FIO                                |                   |                 |         |                          |                          |  |                      |      |          |                                  |             |                      |  |         |

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## DIVISION 01 - GENERAL REQUIREMENTS

## SECTION 01451

## CONTRACTOR QUALITY CONTROL

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### SECTION 01451

## CONTRACTOR QUALITY CONTROL

### PART 1 GENERAL

### 1.1 REFERENCES

7 CUM D 2740

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| ASIM D 3740 | Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction |
|-------------|--|
| ASTM E 329  | (1995b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction              |

(1006) Minimum Dogginsoments for Associas

## 1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2 PRODUCTS (Not Applicable)

## PART 3 EXECUTION

## 3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

### 3.2 QUALITY CONTROL PLAN

## 3.2.1 General

The Contractor shall furnish for review by the Government, not later than

30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 90 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

## 3.2.2 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function. Technicians responsible for sampling and testing of concrete shall be certified by the American Concrete Institute (ACI) or the Concrete Technicians Association of Hawaii (CTAH). Proof of certification shall be included in the CQC Plan. Personnel qualifications may be furnished incrementally as the work progresses, but in no case, less than fourteen (14) calendar days before personnel are required on the job.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test.
- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from

identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

## 3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

# 3.2.4 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

#### 3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 7 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

# 3.4 QUALITY CONTROL ORGANIZATION

## 3.4.1 General

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the

contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

# 3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a construction person with a minimum of 5 years in related work. This CQC System manager shall be on the site at all time during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned no other duties. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as the designated CQC System Manager.

## 3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC System Manager. If it is subsequently determined by the Contracting Officer that the minimum contract CQC requirements are not being met, the Contractor may be required to provide additional staff personnel to the CQC organization at no cost to the Government.

# 3.4.4 Additional Requirement

The CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered at the General Contractors Association of Hawaii.

# 3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

#### 3.5 SUBMITTALS

Submittals shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

#### 3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

## 3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall

#### include:

- a. A review of each paragraph of applicable specifications.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 72 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

## 3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.

- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 72 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

## 3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

# 3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if the quality of on-going work is unacceptable, if there are changes in the applicable CQC staff, onsite production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

#### 3.7 TESTS

# 3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall obtain the services of an industry recognized testing laboratory, or may establish a testing laboratory at the project site acceptable to the Contracting Officer. However, tests contractually required to be performed by an industry recognized testing laboratory shall not be accomplished by the Contractor established on-site laboratory. The Contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.

- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

## 3.7.2 Testing Laboratories

## 3.7.2.1 Laboratory Accreditation

The testing laboratory performing the actual testing on the project shall be accredited by one of the following laboratory accreditation authorities:

American Association of State Highway and Transportation Officials National Voluntary Laboratory Accreditation Program American Association for Laboratory Accreditation Washington Association of Building Officials

The testing laboratory shall submit an acknowledgement letter from one of the listed laboratory accreditation authorities indicating that the application for accreditation has been received and the accreditation process started.

## 3.7.2.2 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

## 3.7.2.3 Capability Recheck

If the selected laboratory fails the capability check, the Contractor shall reimburse reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

# 3.7.3 Onsite Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials shall be

borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to a testing laboratory on the Island of Oahu, State of Hawaii, designated by the Contracting Officer. Coordination for each specific test, exact delivery location, and dates will be made through the Government field office.

#### 3.8 COMPLETION INSPECTION

# 3.8.1 Punch-Out Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Special Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQC System Manager shall conduct an inspection of the work and develop a punch list of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

#### 3.8.2 Pre-Final Inspection

The Government will perform this inspection to verify that the facility is complete and ready to be occupied. The QC Manager shall develop a punch list of items which do not conform to the contract documents. The Government will review the punch list and add to or correct the items listed. The QC Manager shall incorporate Government comments and provide a Pre-Final Punch List. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

# 3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at this inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

#### 3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals reviewed, with contract reference, by whom, and action taken.
- g. Off-site surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

## 3.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected

noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

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# SECTION 01900

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#### SECTION 01900

#### MISCELLANEOUS PROVISIONS

#### PART 1 GENERAL

#### 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 240

(1993) Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels

#### 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having a "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Equipment Data; FIO.

A list of all equipment furnished under this contract. This list shall include, but not be limited to, each piece of equipment with a serial number, and shall include all information shown on the manufacturer's nameplate, so as to positively identify the piece of equipment. This list shall also include the cost of each piece of equipment (less installation costs) F.O.B. construction site. This list shall be furnished as soon as possible after equipment is purchased. The list shall consist of one (1) reproducible and three (3) copies, and shall be furnished to the Contracting Officer not later than thirty (30) calendar days prior to completion of any segment of the contract work which has an incremental completion date.

SD-04 Drawings

As-Built Drawings; FIO.

SD-07 Certificates

Products Containing Recovered Materials; FIO.

The Contractor shall submit manufacturer's certification attesting that product meets or exceeds EPA's recovered material quidelines.

SD-09 Reports

Inspection of Existing Conditions; FIO.

A written report with color photographs noting the condition of the existing facilities at the time of the inspection. One copy of the report including photographs shall be submitted to the Contracting Officer, prior to construction.

Test Resport; GA.

A written report from water tank leakage test in accordance with ACI 350.1R.

SD-18 Records

Dust Control; GA.

Method(s) of dust control.

Excavation/Trenching Clearance; FIO.

Prior to start of any excavation or trenching work, the Contractor shall obtain clearance, in writing, from the appropriate communications agency and base or area engineer. Copies of all correspondence shall be provided the Contracting Officer. Normal coordination time for obtaining the necessary permits is approximately fifteen (15) calendar days. The Contractor shall advise the Contracting Officer promptly when it appears that the normal coordination time will be exceeded.

Condition of Contractor's Operation or Storage Area; FIO.

The Contractor shall submit to the Contracting Officer photographs and/or videos depicting the condition of the Contractor's Operation or Storage Area.

## 1.3 CONTRACTOR QUALITY CONTROL

To assure compliance with contract requirements, the Contractor shall establish and maintain quality control for materials and work covered by all sections of the TECHNICAL REQUIREMENTS in accordance with Section 01451 CONTRACTOR QUALITY CONTROL. Records shall be maintained for all operations including sampling and testing.

## 1.4 AS-BUILT DRAWINGS

As-built drawings shall be in accordance with SPECIAL CONTRACT REQUIREMENT entitled "AS-BUILT DRAWINGS".

#### 1.5 DUST CONTROL

The amount of dust resulting from the Contractor's work shall be controlled to prevent the spread of dust to occupied portions of the construction site and to avoid creation of a nuisance in the surrounding area. Use of water will not be permitted when it will result in, or create, hazardous or objectionable conditions such as flooding and pollution. Measures shall also be taken for dust control along haul routes and equipment parking areas.

#### 1.6 PROTECTION

The Contractor shall take all necessary precautions to insure that no damages to private or public property will result from his operations. Any

such damages shall be repaired or property replaced by the Contractor in accordance with the CONTRACT CLAUSES entitled "PERMITS AND RESPONSIBILITIES" and "PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS", without delay, and at no cost to the Government.

## 1.6.1 Warning Signs and Barricades

The Contractor shall be responsible for posting warning signs or erecting temporary barricades to provide for safe conduct of work and protection of property.

# 1.6.2 Protection of Grassed and Landscaped Areas

The Contractor's vehicles shall be restricted to paved roadways and driveways. Vehicles shall not be driven or parked on grassed and/or landscaped areas except when absolutely necessary for the performance of the work and approved in advance by the Contracting Officer. Grassed or landscaped areas damaged by the Contractor shall be restored to their original condition without delay and at no cost to the Government.

#### 1.6.3 Protection of Trees and Plants

Where necessary, tree branches and plants interfering with the work may be temporarily tied back by the Contractor to permit accomplishment of the work in a convenient manner, so long as they will not be permanently damaged thereby. If this is not feasible, they may be pruned, subject to written approval by the Contracting Officer.

## 1.6.4 Protection of Building From the Weather

The interior of the building and all materials and equipment shall be protected from the weather at all times.

## 1.7 RESTORATION WORK

Existing conditions or areas damaged or disturbed by the Contractor's operations shall be restored to their original condition, or near original condition as possible, to the satisfaction of the Contracting Officer.

#### 1.8 REMOVAL AND DISPOSAL

The Contractor shall salvage or recycle waste to the maximum extent practical as it relates to the capabilities of local industries. A record of the quantity of salvaged or recycled materials shall be maintained by the Contractor during the length of the project and submitted to the Contracting Officer at acceptance of the project. Quantities shall be recorded in the unit of measure of the industry. Reuse of materials on the site shall be considered a form of recycling. An example of such reuse would be the use of acceptable excavated materials as fill.

## 1.8.1 Title to Materials

Title to all materials and equipment to be removed, except as indicated or specified otherwise, is vested in the Contractor upon receipt of notice to proceed. The Government will not be responsible for the condition, loss or damage to such property after the Contractor's receipt of notice to proceed. Items indicated to be removed shall be removed and disposed of off island at the Contractor's responsibility and expense before the

completion and final acceptance of the work, and such materials shall not be sold on the site.

#### 1.8.2 Rubbish and Debris

Rubbish and debris shall be removed from Government-controlled property daily unless otherwise directed, so as not to allow accumulation inside or outside the building. Materials that cannot be removed daily shall be stored in areas designated by the Contracting Officer.

## 1.9 INTERFERENCE WITH GOVERNMENT OPERATIONS

The Contractor shall establish work procedures and methods to prevent interference with existing operations within or adjacent to the construction area. Free passage into adjoining or adjacent buildings not in the contract will not be permitted except as approved by the Contracting Officer. Procedures and methods shall also provide for safe conduct of work and protection of property which is to remain undisturbed.

#### 1.9.1 Coordination

The Contractor shall coordinate all work with the Contracting Officer to minimize interruption and inconvenience to the occupants or to the Government. Scheduling and programming of work will be established during the pre-construction conference.

#### 1.9.2 Utilities and Facilities

All utilities and facilities within the area shall remain operable and shall not be affected by the Contractor's work, unless otherwise approved in writing in advance by the Contracting Officer.

# 1.9.3 Staking and Flagging Existing Utilities

The Contractor, prior to start of any excavation or trenching work, shall verify the location of all utility lines shown on the drawings which are within the areas of work, and shall mark, stake, or flag each utility line along trench alignments and under areas of excavation under this project, as approved. Utility lines so located shall be noted on the drawings.

## 1.9.4 Project Site

The Logistic Contractor (RSE) is using the project site to store construction materials. The Logistic Contractor will remove the construction materials from the project site upon receipt of writing notice from the Contractor, via the Contracting Officer. The Contractor shall take into consideration that the Logistic Contractor will take 30 calendar days remove the stored materials from the project site.

# 1.9.5 Contractor Furnished Transportation for Government Use

Provide one (1/4 ton) 227 kg pickup, one (1/2 ton) 454 kg pickup, and one van for Government use for the duration of contract. Provide fuel, oil, accessories and services as required to keep the vehicles in operating conditions at all times. Contractor furnished transportation shall be at no cost to the Government.

## 1.10 CONTRACTOR'S OPERATIONS OR STORAGE AREA

At the request of the Contractor, an open operations or storage area will be made available within the installation, the exact location of which will be determined by the Government. The Contractor shall be responsible for the security necessary for protection of his equipment and materials, and shall maintain the area free of debris. No rusty or unsightly materials shall be used for providing the secure measure and such measure shall be erected in a workmanlike manner. Before any construction commences on establishing the operation/storage area, Contractor shall take photographs and/or videos of the site in order to establish the original conditions of the site. A duplicate set shall be made and submitted to the Government for its files. Upon completion and prior to the final acceptance of the contract work, the Contractor shall restore the area to its original condition.

#### 1.11 WORKING DIRECTIVES

#### 1.11.1 Working Hours

All work shall be performed between the hours of 0730 to 1600 HST, Monday through Friday. No work shall be accomplished on Saturdays, Sundays, and all federal holidays without written permission from the Contracting Officer. Such written permission shall be available at the job site at all times during construction.

#### 1.12 STAINLESS STEEL TYPE 316

All steel indicated on the drawings and specifications for construction in exterior and non-air conditioned spaces shall be stainless steel, type 316, passivated conforming to ASTM A 240. This requirement shall supercede all requirements noted on other sections in this Project Specifications and shall include but not be limited to sheet metal, fasteners, screens, frames, etc.

## 1.13 USE OF PRODUCTS CONTAINING RECOVERED MATERIALS

Recovered materials are materials manufactured from waste material and byproducts that have been recycled or diverted from solid waste. The Contractor shall give preference to products containing recovered material when price, performance, and availability meet project requirements. A listing of products, including the recommended recovered material content, is provided by the Environmental Protection Agency at http://www.epa.gov/cpg/products.htm. Only those products having recovered material content equal to or greater than EPA guidelines shall be used to meet this requirement.

- PART 2 PRODUCTS (NOT APPLICABLE)
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# DIVISION 03 - CONCRETE

## SECTION 03314

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WTRTANKS

## SECTION 03314

#### CONCRETE WATER TANK TESTING AND DISINFECTION

#### PART 1 GENERAL

#### 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

ACI INTERNATIONAL (ACI)

ACI 350.1R

(1993) Testing Reinforced Concrete Structures for Watertightness

AMERICAN WATER WORKS ASSOCITION (AWWA)

AWWA C652

Disinfection of Water-Storage Facilities

#### 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES.

SD-06 Test Reports

Test reports for watertightness of concrete water tanks; FIO

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

#### 3.1 CONCRETE WATERTIGHTNESS TESTING

## 3.1.1 Start Of Testing

Completed tank shall be cured for a period of 60 days prior to testing for watertightness.

#### 3.1.2 Repair Of Concrete Cracks

All visible shrinkage cracks shall be sealed with epoxy injection in existing walls and new concrete floor slab

## 3.1.3 Watertightness Test Procedures

Testing of water tank shall be in accordance with ACI 350.1R. (attached)

## 3.1.4 Minimum Water Level Drop For Testing

The filled tank shall be monitored until water level drops ½" or over a

period of three days, whichever comes first.

# 3.1.5 Maximum Allowable Leakage For Testing

Maximum allowable leakage is 0.1% per 24 hour period (adjusted upward for evaporation and temperature)

# 3.1.6 Repair Of Leaks

If tank does not meet leakage criteria, water shall be pumped to another tank for reuse. Sealants shall be inspected and repaired as necessary. Tank shall be retested after repairs have been made. Process shall be repeated until concrete tank has passed test for watertightness

#### 3.2 DISINFECTION

## 3.2 Disinfection Procedures

All concrete tank surfaces in contact with water shall be disinfected in accordance with AWWA C652 (attached) except that disinfection shall be with a sprayed 500 ppm chlorine solution.

## 3.3 Environmental Permits For Disposal Of Chlorine Solution

Contractor shall obtain all necessary environmental permits required for disposal of used chlorine disinfection solution.